

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled).

2. (Currently Amended) An imaging optical system ~~according to claim 1, further comprising lens units arranged adjacent to an object side and an image side of the deformable mirror and satisfying~~ for forming an image of an object, comprising:

a first lens unit located at a most object-side position; and

one or more second lens units interposed between the first lens unit and the image, at least one of the second lens units being moved along an optical axis,

wherein the first lens unit includes, in order from an object side:

at least one lens with negative refracting power;

a deformable mirror; and

at least one lens with positive refracting power,

wherein focusing is performed by deformation of the deformable mirror, and

wherein one of the following conditions is satisfied:

$$0.1 < d1/fw < 10.0$$

$$0.1 < d2/fw < 10.0$$

where d1 is a distance ~~between a~~ from an object-side lens unit placed surface adjacent to the ~~object side and~~ deformable mirror to the deformable mirror, d2 is a distance ~~between a~~ from the deformable mirror to an image-side lens unit placed surface adjacent to the ~~image side~~ and the deformable mirror, and fw is a focal length of the imaging optical system at a wide-angle position.

3. – 6. (Canceled).

7. (Currently Amended) An imaging optical system ~~according to claim 1, for forming an image of an object, comprising:~~

a first lens unit located at a most object-side position; and

one or more second lens units interposed between the first lens unit and the image, at least one of the second lens units being moved along an optical axis,

wherein the first lens unit includes, in order from an object side:

at least one lens with negative refracting power;

a deformable mirror; and

at least one lens with positive refracting power,

wherein focusing is performed by deformation of the deformable mirror, and

wherein the deformable mirror is placed so as to satisfy the following condition:

$$35^{\circ} < \theta < 105^{\circ}$$

where θ is a sum of an angle of incidence of an axial chief ray on the deformable mirror and an angle of emergence of the axial chief ray from the deformable mirror.

8. – 15. (Canceled).

16. (Original) An imaging optical system comprising, in order from an object side:

a first lens unit with negative refracting power;

a second lens unit with positive refracting power;

a third lens unit with negative refracting power;

a fourth lens unit with positive refracting power; and

a fifth lens unit,

the second lens unit and the fourth lens unit being moved dependently along an optical axis and satisfying one of the following conditions:

$$0.1 < fG2/fw$$

$$0.1 < fG4/fw$$

where $fG2$ is a focal length of the second lens unit, $fG4$ is a focal length of the fourth lens unit, and fw is a focal length of the imaging optical system at a wide-angle position.

17. (Original) An imaging optical system according to claim 16, wherein the first lens unit has at least one reflecting optical element.

18. (Currently Amended) An imaging optical system according to claim 16, ~~further comprising lens units located adjacent to an object side and an image side of the reflecting optical element, the lens units satisfying 17, wherein~~ one of the following conditions is satisfied:

$$0.1 < D1/fw < 10.0$$

$$0.1 < D2/fw < 10.0$$

where D1 is a distance ~~between a~~ from an object-side lens unit placed surface adjacent to the ~~object-side and~~ at least one reflecting optical element to the at least one reflecting optical element and D2 is a distance ~~between a~~ from the at least one reflecting optical element to an image-side lens unit placed surface adjacent to ~~the image-side and the~~ at least one reflecting optical element.

19. – 25. (Canceled).